

CLAIMS

I CLAIM:

1. A motorized towing device comprising a chassis, at least one motor, at least two
5 wheels, a controller, and a quick release attachment mechanism, said controller
operating said motor to cause the rotation of said wheels and the movement of
said chassis over a surface, said quick release attachment mechanism releaseably
securing said chassis to an object desired to be towed or moved while permitting
rotational movement of said device relative to said object about a generally
10 horizontal plane.
2. The device as claimed in claim 1 including a pair of reversible direct current
variable speed electric motors, each of said motors connected to an axle upon
which one of said wheels is mounted.
- 15 3. The device as claimed in claim 2 including a re-chargeable electric battery to
provide power to said motors.
4. The device as claimed in claim 1 wherein at least a portion of said controller is
20 mounted on a steering column connected to said chassis.

5. The device as claimed in claim 4 wherein said controller includes pressure sensitive switches to distribute power to said motor in response to the magnitude of force applied to said steering column.
- 5 6. The device as claimed in claim 1 wherein said object is a wagon or wheeled cart.
7. The device as claimed in claim 1 including a steering column connected to said chassis and further including a secondary attachment mechanism releasably securing said steering column to said object desired to be towed or moved.
- 10 8. A motorized towing device comprising:
- a chassis housing one or more reversible, variable speed, electric motors, said motors operatively connected to one or more axles, at least 2 wheels mounted upon said one or more axles;
- 15 an electric battery to provide power to said one or more motors;
- a controller at least partially connected to a steering column attached to said chassis, said controller including switches to vary the amount of electrical energy distributed from said battery to said one or more motors;
- 20 a quick release attachment mechanism to releaseably secure said chassis to an object desired to be towed or moved while permitting rotational

movement of said object relative to said chassis in a generally horizontal plane; and,

a secondary attachment mechanism to releasably secure said steering column to said object desired to be towed or moved.

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9. The device as claimed in claim 8 having two electric motors, each of said motors operatively connected to an axle having mounted thereon at least one wheel.

10. A motorized towing device comprising:

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a chassis housing a pair of reversible direct current variable speed electric motors, each of said motors connected to an axle upon which is mounted a wheel;

an electric battery to provide power to said motors;

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a controller at least partially connected to a steering column attached to said chassis, said controller including switches to vary the amount of electrical energy distributed from said battery to said motors in response to force applied to said steering column; and,

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a quick release attachment mechanism to releaseably secure said chassis to an object desired to be towed or moved while permitting rotational movement of said object relative to said chassis in a generally horizontal place.

11. The device as claimed in claim 10 wherein said controller comprises a microprocessor that controls the operation of said motors and which varies the speed and direction of rotation of each motor independent from the other to alter
5 the forward and rearward direction and speed of movement of said device over a surface.

12. A motorized towing device comprising:
a chassis housing a pair of reversible current variable speed electric
10 motors, each of said motors connected to an axle upon which is mounted a wheel;
an electric battery to provide power to said motors;
a controller at least partially positioned upon a steering column connected to said chassis, said controller including a microprocessor and
15 switches that generate signals corresponding to force applied to said steering column by an operator of said device, said signals generated by said switches received by said microprocessor, said microprocessor controlling the speed and direction of rotation of said motors in response to the receipt of said signals causing said device to move at a speed and
20 in the direct direction of the movement of an operator; and,
a quick release attachment mechanism to releaseably secure said chassis

to an object desired to be towed or moved.

13. A motorized towing device comprising:

5 a chassis housing a pair of reversible variable speed direct current
electric motors, each of said motors connected to an axle upon which is
mounted a wheel;
an electric battery to provide power to said motors;
a microprocessor control to govern the operation of said motors;
10 a steering column connected to said chassis, said steering column
including switches that upon operation generate signals received by said
microprocessor control causing said microprocessor to operate said
motors to turn said wheels in a manner that results in said device moving
at a rate of speed and in the same general direction as an operator; and,
15 a quick release attachment mechanism to releaseably secure said chassis
to an object desired to be towed or moved while permitting rotational
movement of said object relative to said chassis in a generally horizontal
plane.

14. The device as claimed in claim 13 wherein said quick release attachment
20 mechanism comprises one or more yokes releaseably securable about the
exterior of said chassis.

15. The device as claimed in claim 14 wherein said yokes comprise a stationary portion, a rotating portion and a closure or locking mechanism to secure said upper portion to said rotating portion while permitting rotational movement of said yokes relative to said chassis.
16. The device as claimed in claim 15 wherein said closure or locking mechanism is a magnetic, electromagnetic or mechanical clamp.
17. The device as claimed in claim 13 wherein in response to signals received from said switches, said microprocessor control operates said motors as dynamic brakes to slow or retard the movement of said device over a surface.
18. A motorized towing device comprising:
- a chassis housing a pair of reversible variable speed direct current electric motors, each of said motors connected to an axle upon which is mounted a wheel;
 - an electric battery to provide power to said motors;
 - a microprocessor control to govern the operation of said motors;
 - a steering column connected to said chassis;

switches that generate signals upon the application of a force to said steering column, said signals received by said microprocessor control and causing said microprocessor control to operate said motors so as to turn said wheels in a manner that results in said device moving at a rate of speed and in the direction of movement of an operator; and,
a quick release attachment mechanism to releaseably secure said chassis to an object desired to be towed or moved, said quick release attachment mechanism comprising one or more yokes releaseably securable about the exterior of said chassis, said yokes comprising a stationary portion, a rotating portion and a closure or locking mechanism to secure said stationary portion to said rotating portion and to thereby secure said object desired to be towed or moved to said chassis while permitting rotational movement of said chassis relative to said object.

19. In combination, a motorized towing device and a wheeled cart, said motorized towing device comprising a chassis housing a pair of reversible variable speed direct current electric motors, each of said motors connected to an axle upon which is mounted a wheel; a battery to provide power to said motors; a microprocessor control; a steering column connected to said chassis; one or more switches generating signals in response to force applied to said steering column by an operator, said signals received by said microprocessor control and

causing said microprocessor control to operate said motors to rotate said wheels in a manner so as to move said chassis at a speed and in the general direction of the movement of said operator; and, a quick release attachment mechanism to releaseably secure said wheeled cart to said chassis, said quick release attachment mechanism comprising one or more yokes connected to said wheeled cart and releaseably receivable about said chassis, said one or more yokes including a stationary portion, a rotating portion, and a magnetic, electromagnetic or mechanical clamp, wherein the securement of said one or more yokes about said chassis through activation of said clamp releaseably secures said wheeled cart to said chassis permitting said chassis to tow or move said cart across a surface while permitting rotational movement of said one or more yokes relative to said chassis.

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